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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/667,650	09/22/2003	John Phenix	14846-23	1133

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EXAMINER

RAYYAN, SUSAN F

ART UNIT	PAPER NUMBER
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2167

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05/14/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/667,650

Applicant(s)

PHENIX ET AL.

Examiner

Susan F. Rayyan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 6-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 6-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 February 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

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DETAILED ACTION

1. Claims 1, 6-16 are pending.

Drawings

2. The drawings were received on February 27, 2006. These drawings are approved (Figure 5).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,6,9-10,13 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Number 5,893,108 issued to Venkatachary Srinivasan et al ("Srinivasan") in view of Stephen R. Davis ("Davis") Learn Java Now, Microsoft Press, 1996.

As per independent claim 1 Srinivasan teaches a method for representing a relational database table as a object in an object-oriented operating system (see Abstract) comprising:

providing a reference to a primary key having a one-to-one mapping to a table entry in said relational database (column 3, lines 52-53 and column 3, lines 64-65);

... the load method in the object-oriented operating system to load a latest instance of a table entry (column 3, lines 64-65 column 4, lines 3-6, column 11,

lines 20-35); and ... a save method in the object-oriented operating system to save an instance of a table entry (column 4, lines 4-5);
overloading a remove method in the object-oriented operating system to remove an instance of a table entry (column 11, lines 7-43);
wherein overloading a remove method in the object-oriented operating system removes itself and any child instances (column 11, lines 7-67, as remove application objects from memory);
wherein overloading a save method in the object-oriented operating system saves itself and any child instances (column 11, lines 7-43, as create application objects and allocating memory for the application objects);
wherein overloading a load method in the object-oriented operating system loads itself and any child instances (column 11, lines 7-43).

Srinivasan does not explicitly teach overloading. Davis does teach overloading (p.49-50) to allow sets of methods with similar purpose to be given the same name. It would have been obvious to person of ordinary skill in the art at the time of the invention to modify Srinivasan with overloading to allow sets of methods with similar purpose to be given the same name (page 50, lines 4-5).

As per claim 6, same as claim arguments above and Srinivasan teaches:
defining meta data relationship classes to define the relationship between a database type and its equivalent object-oriented data type (column 11, lines 23-26).

As per claim 9, same as claim arguments above and Srinivasan teaches:

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providing a read type converter reference to convert data types from relational database data types to object-oriented data types (column 2, line 62 to column 3, line 8, column 11, lines 23-6, and Figure 1).

As per claim 10, same as claim arguments above and Srinivasan teaches: providing a value added write data reference to convert data from relational database data to object-oriented data (column 3, lines 64-65 and column 5, lines 4-6).

As per claim 13, same as claim arguments above and Srinivasan teaches: automatically generating Java code from DDL (column 8, lines 59-61).

Claims 7-8,11-12,15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Srinivasan in view of Davis as applied to claims 1 above, and further in view of US Patent Number 5,937,409 issued to Johnathan Wetherbee ("Wetherbee").

As per claim 7, same as claim arguments above and Srinivasan and Davis do not explicitly teach providing a read data reference to convert data types from object-oriented data types to relational database data types. Wetherbee does teach reference to convert data types from object-oriented data types to relational database data types (column 4, lines 42-64) to create from a relational database full fledged objects in an object oriented system. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify

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Srinivasan in view of and Davis with automatically generating Java code from a data source to create from a relational database full-fledged objects in an object oriented system as described by Wetherbee (column 3, lines 36-41).

As per claim 8, same as claim arguments above and Srinivasan in view of Davis do not explicitly teach providing a write data reference to map data from object-oriented data to relational database data. Wetherbee does teach providing a write data reference to map data from object-oriented data to relational database data (column 4, lines 42-64) to create from a relational database full-fledged objects in an object-oriented system. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Srinivasan in view of Davis with automatically generating Java code from a data source to create from a relational database full-fledged objects in an object oriented system as described by Wetherbee (column 3, lines 36-41).

As per claim 11, same as claim arguments above and Srinivasan in view of Davis do not explicitly teach automatically generating Java code from a data source. Wetherbee does teach automatically generating Java code from a data source (column 3, lines 9-15 and 28-30) to create from a relational database full-fledged objects in an object-oriented system. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Srinivasan in view of Davis with automatically generating Java code from a data source to create from a relational database full-fledged objects in an object

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oriented system as described by Wetherbee (column 3, lines 36-41).

As per claim 12, same as claim arguments above and Srinivasan in view of Davis do not explicitly teach automatically generating Java code from database meta data. Wetherbee does teach automatically generating Java code from database meta data (column 5, lines 110-21) to create from a relational database full-fledged objects in an object oriented system. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Srinivasan in view of Davis with automatically generating Java code from database meta data to create from a relational database full fledged objects in an object oriented system as described by Wetherbee (column 3, lines 36-41).

As per claim 15, same as claim arguments above and Srinivasan in view of Davis do not explicitly teach wherein generated code is independent of a specific J2EE technology, database, external service and third-party products. Wetherbee does teach generated code is independent of a specific J2EE technology, database, external service and third-party products (column 6, lines 8-17) to create from a relational database full-fledged objects in an object oriented system. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Srinivasan in view of Davis with automatically generating Java code from database meta data to create from a relational database full fledged objects in an object oriented system as described by Wetherbee (column 3, lines 36-41).

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Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Srinivasan in view of Davis as applied to claim 1 above, and further in view of US Patent Number 5,918,225 issued to Peter W. Wise ("Wise").

As per claim 14, same as claim arguments above and Srinivasan in view of Davis do not explicitly teach allowing vendor-specific SQL hints to be added to generated code to improve performance. White does teach allowing vendor-specific SQL hints to be added to generated code to improve performance (column 50, lines 36-47) to allow the system to avoid potentially time-consuming or incorrect assumptions. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Srinivasan in view of Davis with vendor-specific SQL hints to allow the system to avoid potentially time-consuming or incorrect assumptions as described by Wise (column 50, lines 43-45).

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Srinivasan in view of Davis as applied to claim 1 above and further in view of US Patent Number 6,529,913 issued to Robert C. Doig et al ("Doig").

As per claim 16, same as claim arguments above and Srinivasan in view of Davis do not explicitly teach allowing incremental loading. Doig does teach allowing incremental loading (column 17, lines 17-32) to provide substantial saving in memory needed. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Srinivasan

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in view of Davis with incremental loading to provide substantial saving in memory needed as described by Doig (column 17, lines 20-21).

Response to Arguments

4. Applicant's arguments filed February 27, 2007 have been fully considered but they are not persuasive.

Applicant argues prior art of record does not teach Applicant argues "overloading the load method in the object-oriented operating system to load a latest instance of a table entry, and "overloading a save method in the object-oriented operating system to save an instance of a table entry. Examiner finds Srinivasan does teach ... the load method in the object-oriented operating system to load a latest instance of a table entry (column 3, lines 64-65 column 4, lines 3-6, column 11, lines 20-35); and ... a save method in the object-oriented operating system to save an instance of a table entry (column 4, lines 4-5).

Applicant argues prior art of record does not teach "overloading a remove method in the object-oriented operating system to remove an instance of a table entry" and "wherein overloading a remove method in the object-oriented operating system removes itself and any child instances". Examiner finds these limitations taught by Srinivasan at column 11, lines 7-43, as removing application objects from memory.

Applicant argues prior art of record does not teach "wherein overloading a save method in the object-oriented operating system saves itself and any child instances" and "a load method in the object-oriented operating system loads itself

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and any child instances". Examiner finds these limitations taught by Srinivasan at column 11, lines 7-43, as creating application objects and allocating memory for the application objects and as removing application objects from memory.

In response to applicant's argument that Davis does not provide motivation for overloading, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

Srinivasan teaches ... the load method in the object-oriented operating system to load a latest instance of a table entry (column 3, lines 64-65 column 4, lines 3-6, column 11, lines 20-35); and ... a save method in the object-oriented operating system to save an instance of a table entry (column 4, lines 4-5), overloading a remove method in the object-oriented operating system to remove an instance of a table entry (column 11, lines 7-43), wherein overloading a remove method in the object-oriented operating system removes itself and any child instances (column 11, lines 7-67, as remove application objects from memory), wherein overloading a save method in the object-oriented operating system saves itself and any child instances (column 11, lines 7-43, as create application objects and allocating memory for the application objects) and wherein overloading a load method in the object-oriented operating system loads itself and any child instances (column 11, lines 7-43). Srinivasan does not explicitly teach overloading. Davis does teach overloading (p.49-50) to allow sets of methods with similar purpose to be given the same name. It would have been obvious to

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person of ordinary skill in the art at the time of the invention to modify Srinivasan with overloading to allow sets of methods with similar purpose to be given the same name (page 50, lines 4-5).

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Contact Information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan F. Rayyan whose telephone number is 571-272-1675. The examiner can normally be reached on M-F, 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cottingham can be reached on 571-272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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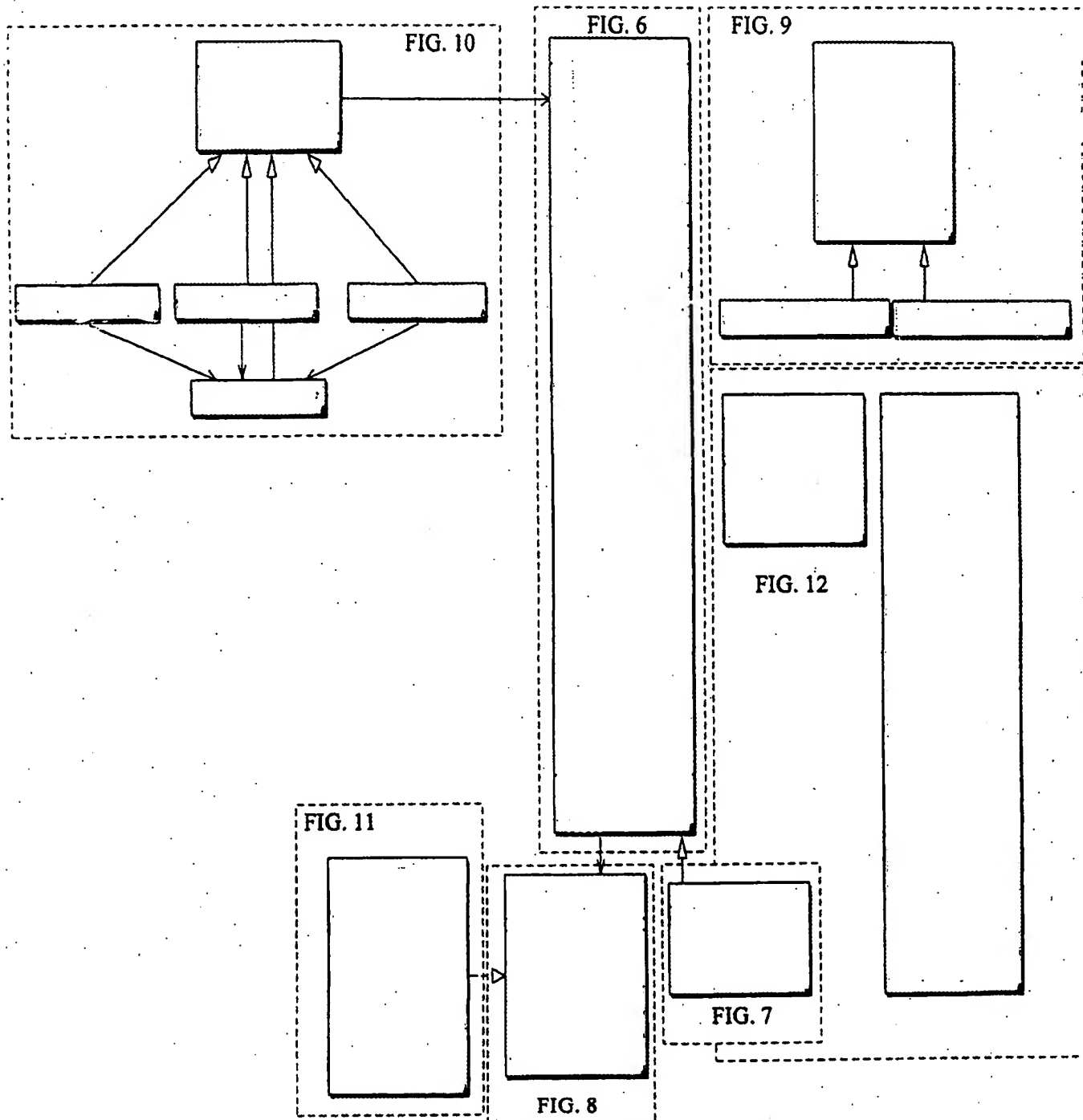

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FIG. 5



FO/8/15 MS La gawabha